

WHAT IS CLAIMED IS:

- 1 1. An isolated nucleic acid molecule comprising a
2 polynucleotide sequence having a subsequence which specifically hybridizes
3 under stringent conditions to a sequence selected from the group consisting of
4 SEQ. ID. No. 2, SEQ. ID. No. 3, SEQ. ID. No. 4, SEQ. ID. No. 5, SEQ.
5 ID. No. 6, SEQ. ID. No. 7, SEQ. ID. No. 8, SEQ. ID. No. 9, SEQ. ID. No.
6 10, SEQ. ID. No. 12, AND SEQ. ID. No. 13.
- 1 2. The isolated nucleic acid of claim 1, wherein the
2 subsequence specifically hybridizes under stringent conditions to ~~SEQ. ID. No.~~
3 *A.*

1 3. The isolated nucleic acid of claim 2, wherein the
2 subsequence is ~~SEQ. ID. No. 2.~~

1 4. The isolated nucleic acid of claim 1, wherein the
2 subsequence specifically hybridizes to ~~SEQ. ID. No. 3.~~

1 5. The isolated nucleic acid of claim 4, wherein the
2 polynucleotide is ~~SEQ. ID. No. 3.~~

1 6. The isolated nucleic acid of claim 1, wherein the
2 subsequence specifically hybridizes under stringent conditions to ~~SEQ. ID. No.~~
3 *A.*

1 7. The isolated nucleic acid of claim 6, wherein the
2 subsequence is ~~SEQ. ID. No. 4.~~

1 8. The isolated nucleic acid of claim 1, wherein the
2 subsequence specifically hybridizes under stringent conditions to ~~SEQ. ID. No.~~
3 *B.*

1 10. The isolated nucleic acid of claim 1, wherein the
2 subsequence specifically hybridizes under stringent conditions to SEQ. ID. No.
3 .

1 11. The isolated nucleic acid of claim 10, wherein the
2 subsequence is SEQ ID NO: 6

1 12. The isolated nucleic acid of claim 1, wherein the
2 subsequence specifically hybridizes under stringent conditions to ~~SEQ. ID NO.~~^{SEQ. ID NO.'7}
3 ~~NO.~~

1 13. The isolated nucleic acid of claim 12, wherein the
2 subsequence is ~~SEQ. ID. No. 7~~.

1 14. The isolated nucleic acid of claim 1, wherein the
2 subsequence specifically hybridizes under stringent conditions to SEQ. ID. No.
3 8.

Sub A 15. The isolated nucleic acid of claim 14, 16, 18, 20, wherein
the subsequence is SEQ. ID. No. 8.

1 16. The isolated nucleic acid of claim 1, wherein the
2 subsequence specifically hybridizes under stringent conditions to SEQ. ID. No.
3

1 17. The isolated nucleic acid of claim 16, wherein the
2 subsequence is SEQ. ID NO: 9.

1 18. The isolated nucleic acid of claim 1, wherein the
2 subsequence specifically hybridizes under stringent conditions to ~~SEQ. ID. No.~~
3 10.

1 19. The isolated nucleic acid of claim 18, wherein the
2 subsequence is ~~SEQ. ID. No. 10.~~
3 10.

1 20. The isolated nucleic acid of claim 1, wherein the
2 subsequence specifically hybridizes under stringent conditions to ~~SEQ. ID. No.~~
3 12.

1 21. The isolated nucleic acid of claim 20, wherein the
2 subsequence is ~~SEQ. ID. No. 12.~~
3 12.

1 22. The isolated nucleic acid of claim 1, wherein the
2 subsequence specifically hybridizes under stringent conditions to ~~SEQ. ID. No.~~
3 13.

1 23. The isolated nucleic acid of claim 22, wherein the
2 subsequence is ~~SEQ. ID. No. 12.~~
3 13.

1 24. The isolated nucleic acid of claim 1, further comprising a
2 promoter sequence operably linked to the polynucleotide sequence.

1 25. The isolated nucleic acid of claim 1, which nucleic acid is
2 a cDNA molecule.

Sue
D/ 1 26. A method of screening for neoplastic cells in a sample, the
method comprising:

3 contacting a nucleic acid sample from a human patient with a
4 probe which hybridizes selectively to a target polynucleotide sequence
5 comprising a sequence selected from the group consisting of SEQ. ID. No. 1,
6 ~~95~~
~~SEQ. ID. No. 2, SEQ. ID. No. 3, SEQ. ID. No. 4, SEQ. ID. No. 5, SEQ.~~
~~6, SEQ. ID. No. 7, SEQ. ID. No. 8, SEQ. ID. No. 9, SEQ. ID. No.~~
8 ~~10, SEQ. ID. No. 11, SEQ. ID. No. 12, and, SEQ. ID. No. 13~~ wherein the
9 probe is contacted with the sample under conditions in which the probe
10 hybridizes selectively with the target polynucleotide sequence to form a stable
11 hybridization complex; and
12 detecting the formation of a hybridization complex.

1 27. The method of claim 26, wherein the nucleic acid sample
2 is from a patient with breast cancer.

1 28. The method of claim 26, wherein the nucleic acid sample
2 is a metaphase spread or a interphase nucleus.

1 29. The method of claim 26, wherein the probe comprises a
2 polynucleotide sequence as set forth in *SEQ. ID. NO.: 1*

1 30. The method of claim 26, wherein the probe comprises a
2 polynucleotide sequence as set forth in *SEQ. ID. NO.: 2*

1 31. The method of claim 26, wherein the probe comprises a
2 polynucleotide sequence as set forth in *SEQ. ID. NO.: 3*

1 32. The method of claim 26, wherein the probe comprises a
2 polynucleotide sequence as set forth in *SEQ. ID. NO.: 4*

1 33. The method of claim 26, wherein the probe comprises a
2 polynucleotide sequence as set forth in *SEQ. ID. NO.: 5*

1 34. The method of claim 26, wherein the probe comprises a
2 polynucleotide sequence as set forth in SEQ. ID. No. 6.

1 35. The method of claim 26, wherein the probe comprises a
2 polynucleotide sequence as set forth in SEQ. ID. No. 7.

1 36. The method of claim 26, wherein the probe comprises a
2 polynucleotide sequence as set forth in SEQ. ID. No. 8.

1 37. The method of claim 26, wherein the probe comprises a
2 polynucleotide sequence as set forth in SEQ. ID. No. 9.

1 38. The method of claim 26, wherein the probe comprises a
2 polynucleotide sequence as set forth in SEQ. ID. No. 10.

1 39. The method of claim 26, wherein the probe comprises a
2 polynucleotide sequence as set forth in SEQ. ID. No. 12.

1 40. The method of claim 26, wherein the probe comprises a
2 polynucleotide sequence as set forth in SEQ. ID. No. 13.

1 41. The method of claim 26, wherein the probe is used to
2 identify the presence of a mutation in the target polynucleotide sequence.

1 42. A method for detecting a neoplastic cell in a biological
2 sample, the method comprising:

3 contacting the sample with an antibody that specifically binds a
4 polypeptide antigen encoded by a polynucleotide sequence comprising a
5 sequence selected from the group consisting of ~~SEQ. ID. No. 1, SEQ. ID. No.~~
ab ~~2, SEQ. ID. No. 3, SEQ. ID. No. 4, SEQ. ID. No. 5, SEQ. ID. No. 6, SEQ.~~
~~7 ID. No. 7, SEQ. ID. No. 8, SEQ. ID. No. 9, SEQ. ID. No. 10, SEQ. ID. No.~~
8 ~~12, and SEQ. ID. No. 13;~~ and

9 detecting the formation of an antigen-antibody complex.

1 43. The method of claim 42, wherein the sample is from
2 breast tissue.

1 44. A method of inhibiting the pathological proliferation of
2 cancer cells, the method comprising inhibiting the activity of a gene product of
3 an endogenous gene having a subsequence which hybridizes under stringent
4 conditions to a sequence selected from the group consisting of ~~SEQ. ID. 1,~~
ab ~~SEQ. ID. No. 2, SEQ. ID. No. 3, SEQ. ID. No. 4, SEQ. ID. No. 5, SEQ. ID.~~
~~6 No. 6, SEQ. ID. No. 7, SEQ. ID. No. 8, SEQ. ID. NO. 9, SEQ. ID. NO. 10,~~
~~7 SEQ. ID. No. 12, and SEQ. ID. No. 13.~~

1 45. A method of detecting a cancer, said method comprising
2 detecting the overexpression of a protein encoded in a 20q13 amplicon.

1 46. The method of claim 41, wherein said protein encoded in
2 a 20q13 amplicon is ZABC1.

1 47. The method of claim 41, wherein said protein encoded in
2 a 20q13 amplicon is 1b1.

(MAB2)